

MARSHALL STAR

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Feb. 17, 2011

NASA announces fiscal year 2012 budget

NASA Headquarters

NASA announced Monday an \$18.7 billion budget request for fiscal year 2012 that supports a reinvigorated path of innovation, technological development and scientific discovery. The budget supports all elements of NASA's 2010 Authorization Act, which was passed by a strong bipartisan majority of Congress and signed into law by President Obama.

"This budget requires us to live within our means so we can invest in our future," NASA Administrator Charles Bolden said. "It maintains our commitment to human spaceflight and provides for strong programs to continue the outstanding science, aeronautics research and education needed to win the future."

The NASA budget includes \$4.3 billion for the Space Shuttle and International Space Station programs, \$5 billion for science, \$3.9 billion for future exploration systems

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Ready for 2012 and beyond



Marshall Space Flight Center Director Robert Lightfoot addresses team members Feb. 14, following the rollout of NASA's proposed fiscal year 2012 budget. Lightfoot told members of the Huntsville-area media at a subsequent press conference that the proposal "hits on our capabilities, on what we do well here at Marshall. This is good news for us." He held an all-hands meeting Feb. 15 to discuss what the budget means for Marshall and to answer questions from the work force.

Space Launch System Center planning team update

By Holly Snow

The NASA Authorization Act of 2010, signed by the President on October 11, 2010, directs NASA to develop a Space Launch System (SLS) and Multipurpose Crew Vehicle

(MPCV) to travel to Earth orbit and beyond. The SLS will be the first exploration-class launch vehicle since the Saturn V. Potential destinations include near-Earth objects, the Moon, Lagrange points and Mars.

NASA has developed a process to make progress while awaiting the FY11 budget appropriation. For example, Marshall, which is responsible for SLS design and development, has

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Preparations continue for launch of shuttle *Discovery*



Discovery on the launch pad at Kennedy.

Teams at Kennedy Space Center, Fla., have begun preparations for the launch of space shuttle *Discovery*'s STS-133 mission to the International Space Station. An agency-level Flight Readiness Review, held by NASA managers before each shuttle mission, will be Feb. 18 at Kennedy.

NASA is targeting a Feb. 24 launch, but the official date will be announced following the meeting. The review determines the readiness of the shuttle's complex array of equipment, support systems and procedures, flight crew, payloads and the space station. It also assesses any risks associated with the mission.

Vehicle *Continued from page 1*

formed a center planning team with several near-term milestones. Todd May, Marshall's associate director, technical, serves as the SLS planning team's lead, and Garry Lyles, the Engineering Directorate's associate director for technical management, serves as the chief engineer.

Marshall Engineering currently is performing internal Requirements Analysis Cycle (RAC) studies in parallel with 13 complementary studies being conducted by private industry under Broad Agency Announcement (BAA) contracts. These activities will help determine

the feasibility of meeting top-level mission requirements with notional launch vehicle architectures, while defining affordability strategies, streamlining systems engineering approaches, and identifying best practices that will be applied to the final concept selected to go forward into formal design and development.

The RAC teams delivered their results the week of February 14, with BAA mid-term reports due the week of February 21. The planning team will use these trade studies to inform the concept sets chosen to go forward into RAC2, with RAC3 activities further

maturing the concept. The Program-level Mission Concept Review and Acquisition Strategy Meeting are planned for spring 2011, marking major milestones toward SLS transition from planning to the formulation and implementation phases. Each stage of progress is reviewed and approved by NASA Headquarters.

Snow, an employee with the Schafer/ASRI/Akins Crisp team, supports the Engineering Directorate and Space Launch System Center Planning Team through the Office of Strategic Analysis & Communications.

38 team members honored with Space Flight Awareness awards

Thirty-eight Marshall Space Flight Center team members received Space Flight Awareness awards Oct. 30 for their outstanding contributions to the space program. They participated in a number of events planned in their honor at the Kennedy Space Center, Fla., on Oct. 31 through Nov. 1, including meeting with NASA's executive management and astronauts, and touring the center.

During their visit, the honorees planned to view the launch of space shuttle Discovery on Nov. 1 on its last mission

scheduled mission, STS-133, but the launch was postponed because of a gaseous hydrogen leak at the external fuel tank's ground umbilical carrier plate – an attachment point between the external tank and a 17-inch pipe that carries gaseous hydrogen safely away from the shuttle to the flare stack, where it is burned off.

STS-133 is now targeted to lift off Feb. 24. Eleven honorees will take personal leave and return to Kennedy to view the launch.



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Engineering Directorate



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Colsa Corp.



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SAIC



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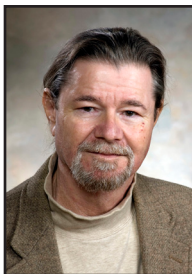
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Analysis & Communications*



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Shuttle Propulsion Office



Gerald P. Stricklin
*Office of Center
Operations*



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Systems Office*



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Systems Office*



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and \$569 million for aeronautics research.

"This budget demonstrates the administration's commitment to maintaining NASA's leadership role in space," Deputy Administrator Lori Garver said. "It puts us on a path to out-innovate, out-educate and out-build the rest of the world."

The budget supports the transition of the space shuttle program's workforce and facilities when the fleet retires this year after 30 years of service. Among the program's many historic accomplishments is the construction of the International Space Station. The station will operate until at least 2020, allowing NASA to fully use it as a technology test-bed and national laboratory for human health research. While continuing to work with its international partners on station activities, NASA will select a non-profit organization to stimulate, develop and manage research activities on the U.S. portion of the station.

NASA has prioritized funding for its partnership with the commercial space industry to facilitate crew and cargo transport to the station.

Companies will innovate to provide safe, reliable and cost effective access to low Earth orbit. NASA also will invest in

the flight systems to take humans beyond low Earth orbit, including a deep space capsule and heavy lift rocket, and

key research and technology to enable the long journeys.

NASA's science budget supports new missions and continued operations of the many observatories successfully studying Earth and space. The agency will launch the Mars Science Laboratory in fiscal year 2012 and continue work on a wide range of astrophysics, heliophysics and Earth science missions.

The 2012 budget request continues NASA's commitment to enhancing aviation safety and

airspace efficiency, and reducing the environmental impact of aviation. NASA also remains dedicated to developing the next generation of technology leaders through vital programs in science, technology, engineering and mathematics.

"We had to make some tough choices, but the budget gives us a plan for sustainable and affordable exploration," said NASA's Chief Financial Officer Elizabeth Robinson. "We're looking at new ways of doing business that improve program management and delivers even greater results to the American taxpayers."

The NASA budget and supporting information are available at <http://www.nasa.gov/budget>.

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— Elizabeth Robinson
NASA's Chief Financial Officer

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Marshall Star Ad Form." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, Feb. 24, is 4:30 p.m. Thursday, Feb. 17.

Miscellaneous

Wrought iron/glass dining table, four chairs, \$650. 256-345-1454

Verizon LG Versa and LG Env, black, \$30 each. 256-881-4148 after 6 pm.

Remote control glider, servos, four channel radio, hi-start, extras, \$30. 256-351-1754

Retro-red Mr. Coffee, \$23. 256-686-1262

Adult pit bulls, male and female, fixed, vet reference of health, behavior, housebroken. nicedogs11@yahoo.com

Daniel Moore "Winning Connection" print, #6275/7000

shrink wrapped on foam board, \$150. 256-777-2701

Lily Flagg pool membership, \$375. 256-417-7456

Gateway 20" widescreen LCD computer monitor, \$75. 256-599-0209

Men's Redhead insulated waterproof hunting boots, size 9D, camo, 800 gm, thinsulate, \$30. 256-468-4219

Black tuxedo, 38S jacket, 30-32/27 adjustable waist pants, size 30-31 shirt, \$75. 256-880-1544

Vehicles

2008 Tracker ProTeam 190TX, 90hp, \$13,900. 256-882-6014

2008 Jeep Wrangler, four door, hard top, 41k miles, \$21,000. 256-655-5146

2007 Honda Civic, four door, auto, power windows, CD, MP3, 63k miles, \$12,000. 256-829-1296

2003 Beetle, \$5,500. 256-603-1341

2002 Jeep Liberty 4x4, 102k miles, \$8,000 obo. 256-658-8241

1998 Stingray RS180, fish/ski, new 140hp, vests and other new equipment, \$9,500 obo. 256-640-6427

1997 Pontiac Sunfire, 31mpg, two door, needs new ac compressor, 137k miles, \$1,750. 256-520-3874

Wanted

Small trailer, i.e. ski trailer, 30" to 40" between fenders, 8" or 12" wheels. 256-353-2806

Houses/offices to clean, available evenings/weekends. 256-777-8595 leave message

CPAP device. 256-527-8116

Lost

Money, Building 4203 cafeteria, Feb. 8, around 8 a.m. 256-455-5183

Shuttle Buddies to meet Feb. 28

The Shuttle Buddies will meet at 8:30 a.m. Feb. 28 at Mullins Restaurant on Andrew Jackson Way. For more information, call Deemer Self at 881-7757.

STS-31: Launch of Hubble Space Telescope

By Sanda Martel

STS-1 lifted off April 12, 1981, marking the first launch of a reusable spacecraft. Space shuttles have repeatedly carried people into orbit; launched, recovered and repaired satellites; conducted cutting-edge research, and built the largest structure in space, the International Space Station.

As the program nears its 30th anniversary, the Marshall Star will feature images and highlights from past shuttle missions.

The Hubble Space Telescope was deployed from space shuttle Discovery during the STS-31 mission, which launched April 25, 1990. Hubble provides spectacular images and discoveries which have forever changed how humans view the cosmos.

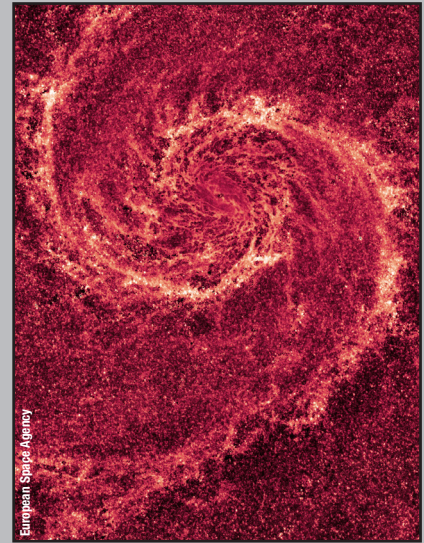
Of NASA's four "Great

Observatories," along with the Compton Gamma-Ray Observatory, Chandra X-Ray Observatory and Spitzer Space Telescope, only Hubble is serviceable by space shuttle astronauts.

Hubble has seen its capabilities grow immensely during its historic years of operation – the direct result of installation of new, cutting-edge scientific instruments and more powerful engineering components. Replacement of aging or failed parts has been an important part of servicing and has been responsible for the telescope's longevity.

Five servicing missions – in 1993, 1997, 1999, 2002 and 2009 – have upgraded the telescope's scientific instruments and operational systems. Hubble reached a major milestone, its 20th anniversary in orbit, on April 24, 2010.

Hubble imagery has delighted and amazed people around the world and has rewritten astronomy textbooks with its discoveries. It is fulfilling the



A dramatic view of the Whirlpool Galaxy captured by Hubble.

hopes astronomers long held for a large, optically superb telescope orbiting above the Earth's distorting atmosphere and providing uniquely clear and deep views of the cosmos.

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis and Communications.

MARS Tennis Club annual membership drive/renewal open through Feb. 27

The MARS Tennis Club annual membership drive/renewal for the 2011 season is open through Feb. 27. Annual single dues are \$25 and family dues are \$30. Single and double league team memberships are \$15.

Membership is available to anyone who works on



Redstone Arsenal, as well as off-site contractors and family members. For more information, visit <http://home.comcast.net/~mtc120> or contact club officers: president Ronda Moyers, 544-6809; vice president Amy Cardno, 544-3039; or secretary/treasurer Linda Brewster, 544-0169.

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Editor: Jessica Wallace Eagan

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